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Notice of Allowability

Application No.	Applicant(s)	
09/542,714	HAVEMOSE, ALLAN	
Examiner	Art Unit	
Tuan A Vu	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 5/03/2004.
2. The allowed claim(s) is/are 1-30 and 32-44.
3. The drawings filed on 04 April 2000 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 1) hereto or 2) to Paper No./Mail Date _____.
(b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of
 Paper No./Mail Date _____.
7. IDENTIFYING INDICIA such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
 Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
 of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
 Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 5/03/2004.

As indicated in Applicant's response, claim 31 has been canceled. Claims 1-30, and 32-44 are pending in the office action.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeffrey Andersen, reg. # 52 558 on 07/21/2004.

(A) Claims:

The application has been amended as follows:

In claims 1, 7, and 13, the respective paragraph "wherein the byte-code includes at least one dynamic ... over a message bus." has been replaced with the following:

"wherein the byte-code includes at least one dynamic base object, the at least one dynamic base object having a self-checking mechanism with dynamic re-start and re-initialization upon run-time or like failure, the dynamic base object further having a standardized communication and services interface, the at least one dynamic base object comprising an interface dynamic base object and an implementation dynamic base object that communicate with each other over a message bus, the interface dynamic base object utilized by an application to send a message to the implementation dynamic base object to carry out a requested task, the

implementation dynamic base object carrying out the requested task and returning a result to the interface dynamic base object.”

In claim 18, the paragraph “wherein the independent byte-code includes at least one dynamic ... over a message bus.” has been replaced with the very same paragraph as just above, i.e. “wherein the byte-code includes ... result to the interface dynamic base object.”

(B) Specifications:

The application has been amended as follows:

In the SUMMARY of INVENTION, in the end of 2nd paragraph, pg. 5 after ‘... byte-code by the digital information appliance.’ , the following has been added:

“The byte code includes at least one dynamic base object, the at least one dynamic base object having a self-checking mechanism with dynamic re-start and re-initialization upon run-time or like failure. The dynamic base object further includes a standardized communication and services interface. The at least one dynamic base object also includes an interface dynamic base object and an implementation dynamic base object that communicate with each other over a message bus. The interface dynamic base object is utilized by an application to send a message to the implementation dynamic base object to carry out a requested task. The implementation dynamic base object carries out the requested task and returns a result to the interface dynamic base object.”

In the SUMMARY of INVENTION, in the end of 3rd paragraph, pg. 5 after ‘... without additional compiling of the tagged section of byte-code.’ , this paragraph has been added:

“The byte code includes at least one dynamic base object, the at least one dynamic base object having a self-checking mechanism with dynamic re-start and re-initialization upon run-

time or like failure. The dynamic base object further includes a standardized communication and services interface. The at least one dynamic base object also includes an interface dynamic base object and an implementation dynamic base object that communicate with each other over a message bus. The interface dynamic base object is utilized by an application to send a message to the implementation dynamic base object to carry out a requested task. The implementation dynamic base object carries out the requested task and returns a result to the interface dynamic base object.”

(C) Change to the ABSTRACT:

At the end of the abstract, after ‘... required by the system.’, the following has been added:

“The object code includes at least one dynamic base object which includes an interface dynamic base object and a implementation base object. The implementation dynamic base object fulfills the object system requested tasks transmitted over by the interface dynamic base object via a message bus.”

EXAMINER’S STATEMENT OF REASONS FOR ALLOWANCE

3. Claims 1-30, and 32-44 are allowed.

The following is an examiner’s statement of reasons for allowance.

The prior art of record, taken alone or in combination fails to teach or suggest the following claimed features:

In a method for dynamic compiling of byte-code in an digital information appliance, wherein tagged sections of byte-code enable an optimized loading and just-in-time utilization and compiling by the appliance from identifying the tagged byte-code, the byte code includes (i)

one dynamic base object, the at least one dynamic base object having a self-checking mechanism with dynamic re-start and re-initialization upon run-time or like failure, the dynamic base object further having a standardized communication and services interface, (ii) the at least one dynamic base object comprising an interface dynamic base object and an implementation dynamic base object that communicate with each other over a message bus, (iii) the interface dynamic base object utilized by an application to send a message to the implementation dynamic base object to carry out a requested task, the implementation dynamic base object carrying out the requested task and returning a result to the interface dynamic base object as recited in claims 1, 7, 13, and 18.

Beadle (USPN: 6,530,075) and **Beadle** (USPN: 6,295,641), in a method to dynamically compile selective portions of byte-codes in a just-in-time environment, discloses dynamic interface application to enable or disable the compiling process, but fails to teach including in the byte-code a dynamic base object having the characteristics mentioned in (i), (ii) and (iii) from above.

Toutonghi (USPN: 5,920,720), discloses a virtual machine for instantiating classes and implementing interfaces, i.e. dynamic interface object, into instances of classes and methods, i.e. a dynamic implementation object, using a virtual table, but does not teach tagged byte codes compilation nor does Toutonghi teach the properties of a dynamic base object as specified in (i), (ii) and (iii).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (703)305-7207. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for formal communications intended for entry)

or: (703) 746-8734 (for informal or draft communications, please consult Examiner before using this number)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. , 22202. 4th Floor(Receptionist).

Art Unit: 2124

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VAT

July 21, 2004



TODD INGBERG
PRIMARY EXAMINER